

# Empowered Patient

**LOCATION**  
KwaZulu-Natal, South Africa

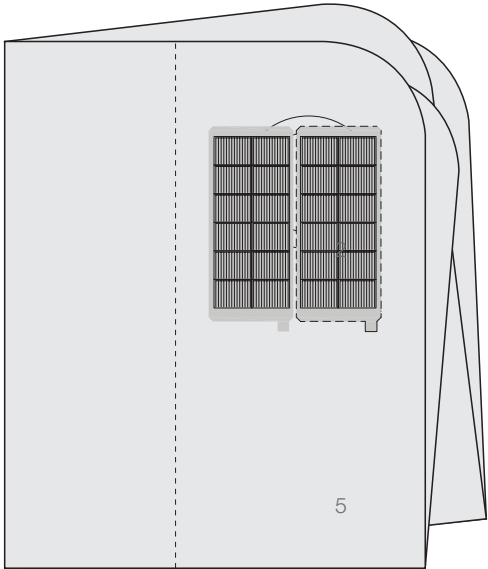
**IMPLEMENTING PARTNERS**  
iTEACH Program:  
Massachusetts General Hospital, NGO



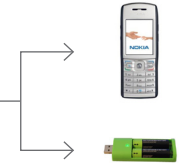
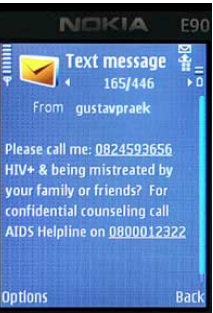
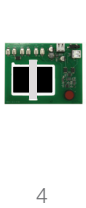
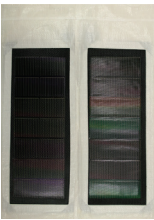
## Profile

An estimated 31 percent of all TB-HIV cases in Africa are in South Africa. The number of laboratory-confirmed cases of MDR-TB more than tripled between 2005 and 2007. The sterilizing effect of the sun's UV rays and fresh air limits the spread of drug-resistant strains of the disease.

A MDR TB treatment program and home care kit was created to help reduce the strain of the disease on patients and their families. Flexible solar materials are integrated into local Kinte cloth and fastened to an emergency warming blanket with a detachable solar textile lantern. While the patient receives treatment, the blanket generates renewable energy for lighting and for charging small devices such as cell phones, an integral part of doctor-patient communication in the SMS-based medical care of KwaZulu-Natal.



- 1 Detachable textile lantern with LED & digital electronics
- 2 4W solar material
- 3 High brightness LED
- 4 Printed circuit board
- 5 Locally made Kente cloth



 **Portable Light**

 **MASSACHUSETTS GENERAL HOSPITAL**

**iTEACH**

Solar Textile Tool Kit

Provides light at night with the Integral High Brightness LED

Charges a cell phone or rechargeable batteries via the Built-In USB Out